

Size: 2,677 acres main site; 1,614 acres experimental explosive area

Mission: Proof and test ordnance

HRS Score: 50.26; placed on NPL in October 1992

IAG Status: Federal Facility Agreement Signed in September 1994

Contaminants: Cleaning solvents, explosives residues, heavy metals, low-level radioactive materials, mercury, PCBs, and pesticides

Media Affected: Groundwater, surface water, sediment, and soil

Funding to Date: \$20.9 million

Estimated Cost to Completion (Completion Year): \$22.3 million (FY2011)

Final Remedy in Place or Response Complete Date for All Sites: FY2011



Dahlgren, Virginia

Restoration Background

Dahlgren Naval Surface Warfare Center was placed on the National Priorities List (NPL) because of potential migration of releases from three contaminated sites that could affect the Potomac River, Gambo Creek, associated wetlands, and local groundwater aquifers used for drinking water. Ordnance testing operations have contributed to the contamination. Site types include former landfills, former ordnance burn and disposal areas, underground storage tanks, operating ordnance ranges, and operating ordnance research and development areas. Seventy-four sites are being addressed under CERCLA.

An Initial Assessment Study identified 36 sites in FY83. In FY86, a confirmation study identified one additional site. In FY92, the installation completed a Removal Action involving the excavation and disposal of soil and concrete. During FY93, a RCRA Facility Assessment identified more than 100 solid waste management units (SWMUs), and a visual site inspection identified 6 areas of concern (AOCs) and 31 SWMUs that required further action. During FY94, the installation completed several Interim Remedial Actions. During FY95, an Engineering Evaluation and Cost Analysis and a Treatability Study (TS) began at two sites. The installation completed Site Inspections (SIs) for 10 sites and a Removal Action for 1 site.

An information repository and an administrative record were established in FY91. A community relations plan (CRP) was completed in FY92. The installation formed a technical review committee in FY92 and converted it to a Restoration Advisory Board in FY95.

In FY96, the installation updated the CRP, completed SIs for 10 sites, initiated SIs for 6 sites, and began Remedial Investigations

(RIs) for 7 sites. It also started a TS of bioremediation for soil and completed Phase I of the Ecological Risk Assessment (ERA) of Gambo Creek and Phase I of the Ecological and Human Health Risk Assessments for eight sites. Two SWMUs and two AOCs were closed out.

In FY97, the installation completed Removal Actions for seven sites and began Remedial Actions (RAs) for a landfill site and a chemical burn area. Phase II of the Gambo Creek ERA work plan was initiated, but later delayed by funding and technical considerations. Sampling for three Appendix B sites and RIs for two sites were completed. The installation completed the Feasibility Study (FS) and Remedial Design (RD) and signed two Records of Decision (RODs) for two sites. An SI was completed for six sites and recommended an RI, Removal Action, further sampling, and a no further action designation. All recommended actions have been completed except the RIs. A bench-scale TS was completed and a bioaccumulation study began. Removal Actions for two sites were delayed due to safety concerns related to ordnance.

FY98 Restoration Progress

The installation completed the initial testing, and confirmed the effectiveness, of an air-sparging/soil vapor extraction (AS/SVE) system for groundwater and soil remediation. Two RIs, including Human Health and Ecological Risk Assessments, were completed for Sites 9 and 17. FSs, Proposed Plans (PPs), and RODs also were completed for these two sites. The RIs for four other sites, which were scheduled for completion in FY98, were delayed because Navy and regulatory resources focused on completing RODs for Sites 9 and 17. An RA for Site 12 (landfill cap) was nearly completed, but the size of the cap increased during field work causing minor delays. Two RDs were completed for Sites 2

and 12. The remaining five RDs, RI/FSs, and RODs for FY98 were delayed so that RODs could be finalized for two sites. SIs planned for five sites were delayed due to decreased funding. The Removal Actions for Sites 3 and 44 are under way, but were not completed due to production delays related to ordnance screening. Final signature on three Appendix B site closeout documents was delayed because of shifting priorities. The Phase II ERA was postponed, pending the outcome of RIs at two other sites. Ecological data were consolidated into a geographic information system for more efficient data management and exchange between Navy and regulators. The bioaccumulation study at Site 25 was submitted for review.

Plan of Action

- In FY99, complete RI/FSs, PPs, and RODs for two sites and install AS/SVE points to increase efficiency and decrease remediation time
- Convert administrative record to CD-ROM in FY99
- Complete RDs for two sites, Removal Action for one site, and sampling and Removal Actions for Appendix B sites in FY99
- In FY99, initiate and finalize fieldwork on the Phase II Gambo Creek ERA and initiate RA at one site and long-term monitoring (LTM) for one site
- In FY00, complete Phase II Gambo Creek ERA, RA for one site, and SIs for three sites; complete RIs and initiate FSs for five sites; and initiate LTM for two sites and RAs for two sites

FY99 FUNDING BY PHASE AND RELATIVE RISK

